



RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

**HAZARDOUS WASTE COMBUSTOR
NATIONAL EMISSION STANDARDS FOR
HAZARDOUS AIR POLLUTANTS**

DRAFT
**NOTIFICATION OF
INTENT TO COMPLY**

AUGUST 2022

Coterie ENVIRONMENTAL

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1.0 INTRODUCTION

This Notification of Intent to Comply (NIC) is being submitted by the Radford Army Ammunition Plant (RFAAP) pursuant to Title 40 Code of Federal Regulations (CFR) Part 63 Section 1210(b) for a new energetic and contaminated waste processing facility (EWI-CWP) that is planned for the RFAAP in Radford, Virginia. The EWI-CWP complex will include a contained burn chamber (CBC) that will process hazardous waste and a car bottom oven (CBO) that will thermally decontaminate non-combustible items. Once operational, these systems will supplement the existing incinerators and will also treat the vast majority of the hazardous wastes now treated via open burning. The CBC will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors (HWCs) codified in Title 40 CFR Part 63 Subpart EEE.

1.1 FACILITY OVERVIEW

The United States Army owns the RFAAP, which is currently operated by BAE Systems, Ordnance Systems, Inc., (BAE). Collectively, the facility owner and operator are referred to herein as RFAAP. The RFAAP's primary mission is to produce propellants and energetics for the Department of Defense (DoD) and commercial entities. These manufacturing operations commenced in 1941 and have been in continuous operation ever since. The products manufactured at the site are used by various DoD operations.

The street address of the RFAAP is:

Radford Army Ammunition Plant
4050 Peppers Ferry Road
Radford, Virginia 24141

All correspondence should be directed to the facility contact at the following address and number:

Sheree F. Andrews
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
4050 Peppers Ferry Road
Radford, Virginia 24141
(540) 639-7701

1.2 HAZARDOUS WASTE COMBUSTOR OVERVIEW

The manufacturing operations at the RFAAP generate a variety of hazardous wastes, including off-specification materials and production intermediates. Currently, these wastes are either treated onsite via incineration in one of two rotary kiln incinerators (RKIs) or via open burning at the RFAAP's

open burning ground (OBG). The existing RKIs and OBG are permitted as hazardous waste treatment units under the Resource Conservation and Recovery Act (RCRA). Their operation is regulated under hazardous waste permits issued by the Virginia Department of Environmental Quality (VDEQ) under United States Environmental Protection Agency (USEPA) Identification No. VA1210020730.

To reduce the practice of open burning and extend the life of the existing RKIs, RFAAP intends to construct a new hazardous waste thermal treatment facility. Referred to as the EWI-CWP, this new facility will supplement the existing incinerators and will also treat most of the hazardous wastes now treated at the OBG. This thermal treatment of hazardous waste will occur within the CBC. In addition, the facility will include a CBO that is designed to decontaminate non-combustible items and facilitate their reuse or recycling. This CBO is not regulated under the RCRA or HWC NESHAP programs, as the items decontaminated in it are not RCRA hazardous wastes.

The CBC and the CBO will be equipped with an extensive air pollution control (APC) system that will include an evaporative cooler, a baghouse, a packed bed scrubber, a high-efficiency particulate air (HEPA) filter, and a selective catalytic reduction (SCR) unit. Each of these APC components is intended to remove specific pollutants from the flue gas stream and was selected based on industry experience with similar systems.

In addition to the components listed above, the new EWI-CWP system is equipped with continuous process monitoring systems (CPMS), such as thermocouples, pressure transmitters, and continuous emissions monitoring systems (CEMS). Together, these continuous monitoring systems (CMS) help ensure operations are conducted within all regulatory limits.

1.3 REGULATORY OVERVIEW

On September 30, 1999, the USEPA promulgated the HWC NESHAP under joint authority of the Clean Air Act Amendments of 1990 (CAAA) and the RCRA. The HWC NESHAP is codified in 40 CFR Part 63 Subpart EEE. The standards are based upon the maximum achievable control technology (MACT). Originally, the HWC NESHAP regulated emissions from three equipment categories: hazardous waste incinerators, cement kilns, and lightweight aggregate kilns. These sources are referred to as Phase I sources. On October 12, 2005, USEPA amended Subpart EEE to include Final Replacement Standards for Phase I sources and to incorporate standards for Phase II sources (*i.e.*, liquid fuel-fired boilers, solid fuel-fired boilers, and hydrochloric acid production furnaces that burn hazardous waste). The HWC NESHAP limits emissions from both new and existing facilities in each equipment category.

The new CBC at the EWI-CWP complex will be subject to the HWC NESHAP emission standards for new hazardous waste incinerators. The applicable emission standards are summarized in Table 1-1 and are described below:

- 40 CFR § 63.1219(b)(1) mandates that the CBC control dioxin and furan (D/F) emissions below 0.11 nanograms toxic equivalence per dry standard cubic meter (ng TEQ/dscm), corrected to seven percent oxygen.

- 40 CFR § 63.1219(b)(2) mandates that the CBC control mercury emissions below 8.1 micrograms per dry standard cubic meter (µg/dscm), corrected to seven percent oxygen.
- 40 CFR § 63.1219(b)(3) mandates that the CBC must control combined emissions of lead and cadmium, referred to as semivolatile metals (SVM), below 10 µg/dscm, corrected to seven percent oxygen.
- 40 CFR § 63.1219(b)(4) mandates that the CBC control combined emissions of arsenic, beryllium, and chromium, referred to as low volatile metals (LVM), below 23 µg/dscm, corrected to seven percent oxygen.
- 40 CFR § 63.1219(b)(5)(i) and (ii) mandate that the CBC control carbon monoxide (CO) emissions below 100 parts per million by volume on a dry basis (ppmv dry) over an hourly rolling average and corrected to seven percent oxygen, and hydrocarbon (HC) emissions below 10 ppmv dry over an hourly rolling average, corrected to seven percent oxygen, and reported as propane.
- 40 CFR § 63.1219(b)(6) mandates that the CBC control hydrogen chloride and chlorine (HCl/Cl₂) gas emissions below 21 ppmv dry, expressed as a chloride (Cl⁻) equivalents and corrected to seven percent oxygen.
- 40 CFR § 63.1219(b)(7) mandates that the CBC control particulate matter (PM) emissions below 0.0016 grains per dry standard cubic foot (gr/dscf), corrected to seven percent oxygen.
- 40 CFR § 63.1219(c)(1) requires a destruction and removal efficiency (DRE) of 99.99 percent for each designated principal organic hazardous constituent (POHC) treated in the CBC.

TABLE 1-1
EMISSION STANDARDS FOR NEW HAZARDOUS WASTE INCINERATORS

PARAMETER	EMISSION STANDARD
Dioxins and furans	0.11 ng TEQ/dscm ¹
Mercury	8.1 µg/dscm ¹
Semivolatile metals	10 µg/dscm ¹
Low volatile metals	23 µg/dscm ¹
Carbon monoxide	100 ppmv dry ¹
Hydrocarbons	10 ppmv dry ¹
Hydrogen chloride and chlorine	21 ppmv dry ¹
Particulate matter	0.0016 gr/dscf ¹
Destruction and removal efficiency	99.99%

¹ Emission standards corrected to seven percent oxygen.

1.4 INTENT TO COMPLY

RFAAP intends to comply with the HWC NESHAP as codified in 40 CFR Part 63 Subpart EEE. The new CBC will comply with all of the applicable emissions standards and operating requirements upon startup of hazardous waste operations and RFAAP will work with VDEQ to incorporate appropriate requirements from the HWC NESHAP into their Title V Operating Permit. Compliance with the applicable standards

will be demonstrated by conducting a comprehensive performance test (CPT) within twelve months of startup of hazardous waste operations.

1.5 NOTIFICATION ORGANIZATION

This NIC has been prepared following the regulations codified in 40 CFR § 63.1210(b). The remaining sections of the document provide the following information:

- Section 2 presents waste minimization techniques that RFAAP uses to minimize the generation of hazardous wastes.
- Section 3 presents the emission control techniques that were considered to comply with the HWC NESHAP.
- Section 4 presents emission monitoring techniques that will be used to demonstrate compliance with the HWC NESHAP.
- Section 5 summarizes the key activities and milestones for compliance.
- Section 6 provides information on the NIC public meeting and notices.
- Section 7 is a summary of RFAAP's intent to comply with the HWC NESHAP.
- Section 8 presents the required document certification.
- Appendix A includes an example of the public meeting notice provided to the facility mailing list.

2.0 WASTE MINIMIZATION TECHNIQUES

In accordance with 40 CFR § 63.1210(b)(1)(i)(C), this section provides information on the waste minimization techniques that RFAAP uses for compliance with the HWC NESHAP. The facility has developed a waste minimization program aimed at reducing the amount of energetic waste generated and destroyed at the facility.

The following summarizes the waste minimization goals for the facility:

1. RFAAP has instituted a program to redirect waste materials back into the process. If the wastes cannot be directed back into the process, efforts are made to facilitate their treatment at the RKIs instead of the OBG. Currently, RFAAP targets maintaining the proportion of OBG waste to total waste treated onsite at or below 40 percent.
2. RFAAP is working to reduce the amounts of energetic waste containing lead generated at the facility and in turn reduce the amount of lead-bearing energetic waste treated onsite.
3. RFAAP is constantly evaluating methods to modernize their operations, reduce waste generation, and increase process efficiencies.

Each of these goals is implemented on a program, production, and individual operation basis through a variety of methods. For example, some of these goals are integrated into ISO14001 program targets. Others, such as specific waste reduction or redirection efforts, are implemented on a facility-wide and individual operation basis in cooperation with the operations and environmental management teams and the area managers and engineers. In addition, RFAAP's modernization group is charged with finding new and innovative ways to modernize and improve plant processes and operations. Many of these projects are associated with the government's pollution prevention (P2) efforts.

Metrics for waste generation are maintained by the Environmental Department and are continuously tracked and evaluated. In focusing on this priority, RFAAP succeeded in reducing the overall amount of waste going to the OBG by greater than 50 percent over a 10-year period.

3.0 EMISSION CONTROL TECHNIQUES

In accordance with 40 CFR § 63.1210(b)(1)(i)(C), this section provides information on the emission control techniques that RFAAP is considering for compliance with the HWC NESHAP.

As stated previously, RFAAP intends to operate the new CBC in compliance with the HWC NESHAP. This goal will be met with implementation of state-of-the-art combustion and APC systems. Combustion gases will flow from the CBC unit into an afterburner, an evaporative cooler, a baghouse, a packed bed scrubber, a HEPA filtration system, and an SCR unit. Each of these pieces of APC equipment is intended to remove specific pollutants from the flue gas stream and was selected based on industry experience with similar systems.

3.1 ORGANICS DESTRUCTION

Thermal destruction of organics in any waste feed is achieved via the proper treatment of the materials at an elevated temperature for the length of time necessary to ensure complete oxidation of all carbon to carbon dioxide (CO₂) and all hydrogen to water vapor. Combustion chamber and burner design can enhance this destruction process by helping ensure the mixing of the hot burner flame with the combustion off-gases.

Proper thermal destruction in the proposed system will be achieved in the afterburner. The CBC is designed to provide safe ignition of all energetic waste in the batch. However, the CBC is not designed to fully oxidize these materials to CO₂ and water vapor. The temperatures of the chamber are targeted to ensure full and safe ignition of all energetic materials, not to meet the HWC NESHAP DRE criteria. Those criteria are satisfied by the afterburner, which is intended to provide the necessary high-temperature oxidation of the organics in the waste feed. The afterburner will be designed to raise the temperature of the flue gases to approximately 1,800 degrees Fahrenheit (°F) to ensure adequate destruction of 99.99 percent of the organic components of the waste feed. Burner and chamber design will be enhanced to provide proper mixing of the furnace off-gases with the burner flame.

3.2 POLLUTANT REMOVAL

The other HWC NESHAP regulated pollutants (PM, SVM, LVM, HCl/Cl₂, and mercury) are not destroyed like organics are in the CBC or afterburner; instead, these pollutants will be removed from the flue gas by the downstream APC equipment. With complex regulations such as the HWC NESHAP, which require significant removal of many different types of pollutants, multiple pieces of APC equipment are often required. Some may be used specifically to target particulate-based pollutants, while others may be combination devices that can remove multiple pollutants at once.

From the afterburner, the flue gases will be rapidly quenched in an evaporative cooler before they enter the downstream APC system. This rapid quenching of the flue gases helps to minimize the formation of D/F compounds, which are typically formed from the slow cooling of combustion gases between a temperature range of 850°F and 350°F.

After being quickly quenched in the evaporative cooler, the flue gases will pass into a high efficiency fabric filter baghouse. The baghouse will contain 196 polytetrafluoroethylene (PTFE)-coated fiberglass bags. The baghouse is designed to operate at an air to cloth ratio of 2.7:1 and, by doing so, will remove 90 percent or more of the particulate-based pollutants from the flue gas stream. The single compartment baghouse will be a pulse-jet style unit. As flue gases flow through the filter bags from the outside to the inside, particles will be collected on the outside of the bags. Inside each bag, a rigid wire cage will keep the filter bag from collapsing while under vacuum. Upon exiting the bags, the off-gas will pass through an integrated set of six HEPA filters located in the clean gas plenum before exiting the module through a ductwork connection.

From the baghouse, the flue gases move into the wet scrubbing section of the APC system for acid gas removal. The 400°F flue gas that exits the baghouse is cooled by an adiabatic quench section at the scrubber inlet. This quench further reduces the flue gas temperature to approximately 170°F. The gases then enter the packed bed scrubber, which is designed to remove acid gases such as HCl and Cl₂, as well as some additional PM and mercury, from the gas stream using a combination of filtered recycled water and fresh water. The pH of the combined scrubbing solution is controlled using a metered caustic solution. Salt buildup in the scrubbing solution is controlled by continuously removing a small slipstream of liquid from the system. This “blowdown” stream is directed to the evaporative cooler water tank and serves as the main water supply for the evaporative cooler.

Upon exiting the wet scrubber, the flue gasses are reheated to approximately 400°F by a natural gas-fired burner located in the duct and then enter a HEPA filter and SCR module. The reheat is necessary to ensure that the flue gases are optimal temperature for treatment in the downstream SCR. The HEPA filter provides a final polishing step for PM, SVM, and LVM and helps to prevent fouling of the catalyst in the downstream SCR. The HEPA filter is a passive system that reduces PM-based emissions as the flue gases pass through the HEPA’s filter banks. The HEPA filter box contains a bank of 8 filters consisting of an aluminum screen and a micro-glass fiber/acrylic resin binder filter. The pressure drop across the filters is monitored to ensure that no plugging or other excessive buildups occur that would reduce the removal efficiency.

Once in the SCR, the flue gases are mixed with anhydrous ammonia and are reacted over a catalyst to reduce the nitrogen oxides (NO_x) and D/F in the flue gas. The rate of ammonia injection will be controlled as necessary to maintain a desired NO_x outlet concentration. The anhydrous ammonia for the SCR is supplied through a pipeline from a nearby ammonia tank farm. The SCR contains two parallel catalyst beds that are designed to achieve both high NO_x and D/F removal at lower temperatures than most SCR systems. Although not an HWC NESHAP regulated pollutant, excess NO_x from the CBC can

impact visibility in the New River Valley. Therefore, control of NO_x from the incinerators is equally important as control of the HWC NESHAP regulated pollutants.

After leaving the SCR, the gases will be pulled through the induced draft (ID) fan and will exit through the stack to the atmosphere. The ID fan will serve as the motive force for flue gases through the entire system. The suction provided by this fan will maintain a negative pressure throughout the entire incineration system and will help to prevent fugitive emissions of untreated flue gases. The exhaust stack for the system will stand 100 feet high, providing adequate dispersion of the treated flue gases into the atmosphere.

3.3 EFFECTIVENESS

The CBC and associated APC equipment were designed to meet the applicable HWC NESHAP emission standards as well as to control visibility of the flue gases. The selected combustion and APC systems have been demonstrated effective at achieving these goals in other incineration systems throughout the United States. Each piece of equipment will be targeted for specific control as follows:

- The afterburner is designed with state-of-the-art combustion technology to ensure 99.99 percent destruction of the organic constituents in the hazardous waste. In addition to meeting the DRE standard, these components will help achieve compliance with the CO, HC, and D/F emission standards.
- The evaporative cooler will quickly quench the flue gases as they exit the afterburner, helping to minimize the formation of D/F and achieve compliance with the applicable emission standard.
- The feed rate of each regulated constituent (ash, SVM, LVM, mercury, and chlorine) will be controlled to limit the loading of pollutants to the CBC and ensure that their loading to the system is within design limits.
- The high-efficiency baghouse will operate at a very aggressive air to cloth ratio and will reduce the PM, SVM, and LVM in the flue gas to the extremely low levels dictated by the associated HWC NESHAP standards.
- The packed bed wet scrubber will utilize a water and caustic mix, as well as high efficiency packing materials, to effectively reduce the HCl/Cl₂ levels in the flue gas to the required HWC NESHAP levels. The scrubber will also provide for some removal of PM and mercury from the flue gas stream.
- The HEPA will provide further control of sub-micron PM, SVM, and LVM.
- The catalyst utilized in the SCR unit, in addition to reducing NO_x from the flue gases, also destroys, reacts, and eliminates any D/F compounds that are generated with very high efficiency.

The final effectiveness of each of these control technologies will be demonstrated during the CPT, which will be conducted within twelve months of startup of hazardous waste operations.

3.4 EVALUATION CRITERIA

Waste composition information and vendor design bases were used to evaluate appropriate emission control techniques for the CBC. The evaluation criteria included the following:

- Technology efficiency
- Operation impacts
- Cost effectiveness.

The following proposed units at the EWI-CWP complex were determined to be the technologies of choice for meeting the HWC NESHAP emission standards and requirements listed in Table 3-1.

TABLE 3-1
COMPLIANCE ATTAINMENT TECHNOLOGIES

PARAMETER	TECHNOLOGY(IES) SELECTED OR DESIGNED TO ACHIEVE COMPLIANCE
Destruction and removal efficiency	Afterburner
Dioxins and furans	Afterburner and SCR unit
Mercury	Wet scrubber and feed rate limitation
Semivolatile metals	Baghouse, HEPA filter, and feed rate limitation
Low volatile metals	Baghouse, HEPA filter, and feed rate limitation
Carbon monoxide	Afterburner
Hydrocarbons	Afterburner
Hydrogen chloride and chlorine	Wet scrubber and feed rate limitation
Particulate matter	Baghouse, wet scrubber, HEPA filter, and feed rate limitation

4.0 EMISSION MONITORING TECHNIQUES

RFAAP will employ CMS, including CEMS and CPMS, to demonstrate continuous compliance with the HWC NESHAP. RFAAP will also conduct periodic testing of the furnace emissions to demonstrate compliance with the emission standards.

4.1 CONTINUOUS EMISSION MONITORING

40 CFR § 63.1209(a)(1)(i) requires that a facility use CEMS to document compliance with the CO or HC emission standards. The facility is also required to use an oxygen CEMS to continuously correct the CO or HC levels to seven percent oxygen. RFAAP has chosen to monitor CO and oxygen continuously. The HC emissions will be monitored during the CPT. The installed CEMS will comply with the requirements of the Appendix to the HWC NESHAP and the applicable performance specifications.

4.2 CONTINUOUS PARAMETER MONITORING

Because not all HWC NESHAP regulated pollutants can be monitored with CEMS, CPMS will be used to monitor the process operations and to demonstrate that each of the monitored parameters is within the limits established per 40 CFR § 63.1209 of the HWC NESHAP. Appropriate operating parameter limits (OPLs) will be established for the afterburner, baghouse, wet scrubber, HEPA filter, and SCR unit. In addition, the weight and composition of each CBC batch will be monitored to ensure compliance with established feed rate limitations for regulated pollutants.

Each of these CPMS will be installed and operating on the unit upon startup and will be linked into the automatic waste feed cutoff (AWFCO) system. The AWFCO system will be programmed to ensure compliance with 40 CFR § 63.1206(c)(3), which requires that the system prevent feeding hazardous waste whenever OPLs or emission standards are exceeded.

4.3 PERIODIC EMISSIONS TESTING

RFAAP is required to perform periodic emissions testing to demonstrate compliance with the HWC NESHAP standards. This testing will be conducted following a written test plan, reviewed, and approved by VDEQ. Within one year of startup of hazardous waste operations, RFAAP will perform the CPT on the CBC. This test will measure the emissions of all HWC NESHAP regulated pollutants. The CPT plan, which will be finalized one year prior to the CPT, will describe the target OPLs, test conditions, and emission sampling techniques. Unless specifically approved otherwise, all emissions testing will be conducted following approved USEPA methods. The analytical program for the CPT will follow a written quality assurance project plan (QAPP) that is designed to ensure the collection of representative, high-quality data. A draft CPT plan is provided for review along with this draft NIC.

5.0 KEY ACTIVITIES AND MILESTONES

Information on key activities and milestones is provided in Table 5-1. The individual dates and milestones provided are not intended to be static and may be revised during the period the NIC is in effect. The individual dates and milestones listed below are not requirements and therefore are not enforceable deadlines. RFAAP is supplying this information as part of the NIC only to inform the public of RFAAP's intentions towards achieving compliance.

TABLE 5-1
KEY ACTIVITIES AND MILESTONES

TASK/MILESTONE	ANTICIPATED DATE
Submit RCRA Part B permit modification	September 2022
Submit air permit application	October 2022
Draft Notification of Intent to Comply provided to public	August 2022
Draft comprehensive performance test plan provided to the public	August 2022
Informal NIC public meeting	September 2022
Submit final Notification of Intent to Comply	October 2022
Final RCRA permit and air permit approval	May 2023 ^{1,2}
Site clearing and preparation	TBD ²
Construction	TBD ²
Submit final comprehensive performance test plan	CPT – 1 year ³
Begin system commissioning	Start of construction + 19 months ⁴
Startup of hazardous waste operations	Start of commissioning + 3 months ⁴
Perform comprehensive performance test	Startup of hazardous waste + 1 year ⁴
Submit Notification of Compliance	CPT + 90 days ³

¹ To be determined. Issuance of the RCRA permit and State air permit to construct is dependent upon actions of the VDEQ and is therefore, largely outside control of the RFAAP. RFAAP intends to work with VDEQ to expedite the permitting process as much as possible. The schedule provided above anticipates permit issuance within 7 months of application submittal.

² RFAAP is committed to timely installation and operation of this new facility. However, construction of any waste treatment facility or air emission source is very tightly controlled under each regulatory program to prevent the initiation of construction prior to permit issuance. RFAAP intends to request that the State allow some site work and construction activities in advance of permit issuance to minimize the impact of weather delays on the schedule and to ensure that the new EWI-CWP facility is constructed as quickly as possible.

³ The final CPT plan must be submitted to VDEQ at least one year prior to commencement of the CPT.

⁴ The initiation of each of these tasks is ultimately tied to permit issuance, which is largely outside control of the RFAAP. Therefore, the anticipated date for each of these activities has been shown based on the necessary predecessor and the expected duration of that predecessor. If the RCRA and air permits are received in May 2023, the following schedule would apply: Construction, May 2023, Commissioning December 2025, Startup of hazardous waste March 2025, CPT March 2026, Notification of Compliance June 2026.

6.0 PUBLIC MEETING AND NOTICE

40 CFR § 63.1210(c) requires that the RFAAP hold at least one informal meeting with the public to discuss anticipated activities described in the draft NIC for achieving compliance with the HWC NESHAP. RFAAP is required to provide public notice of the meeting at least 30 days prior to the meeting.

6.1 MEETING NOTICE

The notice provided in Figure 6-1 will be published in the *Roanoke Times* on or before 23 August 2022.

In addition to the above published notice, RFAAP will provide notice of the public meeting via radio broadcast on the local station, WSLC-FM, 94.9, Star Country. The radio announcement will run on or before 23 August 2022. RFAAP will also mail notice of the public meeting to all persons listed on the facility mailing list. A copy of this notice is provided as Appendix A.

6.2 MEETING SUMMARY

A summary of the public meeting will be included with the final NIC.

FIGURE 6-1
PUBLIC MEETING NOTICE

BAE Systems, Ordnance Systems Inc. (BAE) is the contracted operator of the US Army owned Radford Army Ammunition Plant (RFAAP), located at 4050 Peppers Ferry Road, Radford, Virginia, 24141. BAE and the US Army will hold an informal public meeting on Friday, September 23, 2022, at the Christiansburg Public Library, located at 125 Sheltman Street, Christiansburg, Virginia, 24073 on a modern thermal treatment facility that is planned for the site. The presentation on the project will begin at 6:00 p.m. and will be followed by an open question and answer period.

BAE and the Army are proposing to install a new energetic waste incineration and contaminated waste processing (EWI-CWP) complex at the RFAAP. This project, which was initially permitted under the Resource Conservation and Recovery Act (RCRA) program in 2018 and noticed to the public at that time, is currently in the final design stages. RFAAP is currently updating the RCRA permit to incorporate design modifications and operational details for the contained burn chamber (CBC) that is included in the EWI-CWP complex.

The CBC will be subject to regulation under the RCRA program as well as the National Emissions Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (HWC NESHAP) and is intended to process many of the wastes currently processed at the facility's open burning ground. The public meeting announced today will be held to discuss how the CBC in the EWI-CWP complex will comply with the emission standards provided by the HWC NESHAP.

A copy of the draft HWC NESHAP Notification of Intent to Comply (NIC) and draft Comprehensive Performance Test (CPT) Plan containing information about our plans for compliance are available for viewing at the following location:

Christiansburg Public Library
125 Sheltman Street
Christiansburg, Virginia 24073

Individuals wanting additional information or who have special needs to attend the public meeting are encouraged to contact Charlie Saks with RFAAP at least 72 hours prior to the meeting at (540) 231-4740 or via e-mail at charles.e.saks3.civ@army.mil.

7.0 SUMMARY

RFAAP intends to install a new EWI-CWP complex for the destruction of hazardous wastes at the RFAAP. The CBC included in this complex will be designed to thermally treat energetic wastes generated at the site and will be equipped with a state-of-the-art APC system to remove pollutants to MACT levels. Once operational, this new facility will supplement the existing RKIs and will also treat most of the hazardous wastes now treated via open burning at the OBG. RFAAP intends to operate the CBC in compliance with the applicable requirements of the HWC NESHAP, 40 CFR Part 63 Subpart EEE and has selected emission control techniques which will ensure that the emission standards are reliably met. In addition, RFAAP will continue to evaluate and implement waste minimization throughout the facility. RFAAP will operate the CBC using all required CMS to ensure that compliance with the HWC NESHAP is achieved at all times. RFAAP has developed a schedule for key activities that outlines implementation plans that will allow for compliance to be achieved upon startup of the CBC.

8.0 CERTIFICATION

The following statement is being provided pursuant to 40 CFR § 63.1212(a) and has been signed by the appropriate RFAAP responsible officials, as defined under 40 CFR § 63.2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Facility Owner (United States Army)

Name: Russell A. Jones

Title: Lieutenant Colonel, US Army, Commanding Date: _____

Signature: _____

Facility Operator (BAE Systems, Ordnance Systems, Inc.)

Name: Kirk Johnson

Title: General Manager, BAE-RFAAP Date: _____

Signature: _____

(This certification will be completed prior to submittal of the final NIC.)

Appendix A:
PUBLIC MEETING NOTICE MAILED TO FACILITY MAILING LIST



DEPARTMENT OF THE ARMY
RADFORD ARMY AMMUNITION PLANT
PO BOX 2
RADFORD, VIRGINIA 24143-0002

August 23, 2022

NOTICE OF PUBLIC MEETING

Dear Neighbor or Interested Party:

BAE Systems, Ordnance Systems Inc. (BAE) is the contracted operator of the Radford Army Ammunition Plant (RFAAP), which is a United States Army owned facility. Currently, RFAAP operates two hazardous waste incinerators and an open burning ground to destroy energetic wastes generated during these manufacturing operations. These units are operated in compliance with a Resource Conservation and Recovery Act (RCRA) Permit and a Title V permit issued under the Clean Air Act (CAA) in accordance with the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP).

In 2018, RFAAP prepared an application for the Virginia Department of Environmental Quality (VDEQ), requesting to add three new hazardous waste incinerators to the facility's RCRA permit. The three incinerators included two rotary kiln incinerators (RKIs) and one contained burn chamber (CBC). These units were sited on a new explosive waste incineration/contaminated waste processing (EWI-CWP) complex located in the Horseshoe portion of the RFAAP. The EWI-CWP complex was intended to reduce the current practice of open burning at the site and to extend the life of the existing incineration capability. The RCRA application for these units was approved by VDEQ and the RCRA permit for the new waste treatment units was issued on November 21, 2019. Like the existing incinerators, these new units will also be subject to regulation under the HWC NESHAP and other CAA requirements.

Since that time, RFAAP has been actively working on completing the design of the EWI-CWP complex and evaluating the operational readiness of the legacy incinerators. As this design has progressed, changes have occurred that will require RFAAP to modify the issued RCRA permit before construction of the complex can commence. This modification will update the design and operational details for the contained burn chamber (CBC) that was included in the permitted design. The modification, which will be provided to VDEQ in September 2022, must be approved by VDEQ before RFAAP can commence construction of the CBC. In addition, VDEQ must also issue a permit to construct a new emissions source under the State's New Source Review (NSR) program. An application for this construction permit will be made later this year.

As part of the public participation process, RFAAP is required to engage the public at multiple stages in the permitting process. The first of these milestones involves a public meeting outlining RFAAP's intent to comply with the applicable HWC NESHAP requirements. Under the HWC NESHAP, facilities must hold a public meeting to outline plans for coming into compliance with HWC NESHAP. An initial meeting on

this effort was held by RFAAP on November 13, 2018. However, since the NSR construction permit for the EWI-CWP complex was not issued and design modifications were required, VDEQ has requested that RFAAP repeat this HWC NESHAP "Notification of Intent to Comply" meeting.

RFAAP will host this new public meeting providing notification of our intent to comply with the HWC NESHAP on September 23, 2022. The informal public meeting will be held at the Christiansburg Public Library, located at 125 Sheltnan Street, Christiansburg, Virginia, 24073. A presentation on the updated EWI-CWP facility will begin at 6:00 p.m. and will be followed by an open question and answer period. This public meeting notice is being mailed to all persons listed on the facility mailing list and representatives of appropriate State and local government units.

A copy of the draft HWC NESHAP Notification of Intent to Comply (NIC) and a draft comprehensive performance test (CPT) plan are available for viewing at the following location:

Christiansburg Public Library
125 Sheltnan Street
Christiansburg, Virginia 24073

The draft NIC provides an anticipated schedule for the project and our plans for compliance with the HWC NESHAP emission limitations. The draft CPT plan explains how RFAAP will demonstrate compliance with those emission standards during an emissions test that will be conducted within twelve months of starting hazardous waste operations.

Individuals wanting additional information or who have special needs to attend the public meeting are encouraged to contact Charlie Saks with RFAAP at least 72 hours prior to the meeting at (540) 231-4740 or via e-mail at chaes.e.saks3.civ@army.mil.